

140,515

PATENT



SPECIFICATION

Application Date, Dec. 23, 1918. No. 21,563/18.

Complete Accepted, Mar. 23, 1920.

COMPLETE SPECIFICATION.

Improvements in or relating to Knives with Pivoted Blades.

I, ALBERT EDWARD CRAWFORD, of Harrow School, Middlesex, Assistant Master, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

- 5 This invention relates to knives with pivoted blades, its object being the provision in such knives of an arm used for the purpose of facilitating the turning of the blade about its pivot, and also used in certain cases for locking the blade in its open position so that it cannot accidentally close on to the fingers of the person holding the handle.
- 10 Accordingly, the present invention comprises the combination with the sides of a knife-handle and a blade pivoted between them, of a pivot-pin which turns with the blade and extends from it through or towards the adjacent side of the knife, and of an arm also constructed to turn with the blade and lying across the pivot-pin, this arm being so engaged with the pivot-pin that the arm can slide
- 15 in the direction of its own length across the pin. In addition, there may be provided on the knife-handle or casing a stop or stops which as hereinafter described, can co-operate with the arm to lock the opened blade.

In the accompanying drawings:—

- 20 Figures 1, 2 and 3 are side elevations of one construction of knife according to this invention, with the blade closed in Figure 1, partly opened in Figure 2, and right open and locked in Figure 3;

Figure 4 is a view, similar to Figure 1, of an alternative construction hereinafter again referred to;

- 25 Figure 5 is a side elevation of a further alternative construction of knife according to this invention, with the blade closed;

Figure 6 is a view similar to Figure 5 with part of one side of the handle removed; and

Figure 7 is a view similar to Figure 6 but showing the blade open and locked.

- 30 Like letters indicate like parts throughout the drawings.

With reference first to Figures 1, 2 and 3 the two sides of the knife-handle H have a blade B pivoted between them; a pivot-pin P fixed to the blade extends

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from it through the adjacent side 2 of the knife. An arm A provided with a longitudinal central slot S closed at the ends turns with the blade, for it lies parallel or approximately so to the blade and across the outer end of the pivot-pin P which latter is squared at P³ and passes through the slot; by the engagement of the sides of this slot with the squared sides of the pivot-pin the arm and blade are caused to turn in company when they are rotated about the axis of the pivot. Figure 1 shows the knife with the blade closed and with the arm A lying snugly along the side of the knife-handle. By pressing the arm, whilst it is in this position, in the direction indicated by the arrow X, the blade can be much more easily opened than if opening had to be effected by taking hold of the back of the blade. Alternatively, the blade may be opened by first sliding the arm A to the right from the position in which it is shown in Figure 1 and next forcing the arm down past the position in which it is indicated in Figure 2 into that in which it is shown in Figure 3. The opened blade can be kept in the open position by the inclusion of the arm A in the grasp of the user upon the handle, when the parts are in the position in which they are shown in Figure 3. But if desired a small projection PR can be provided for this purpose on the outside of the knife-handle; as the blade approaches the open position which it occupies in Figure 3, the end A¹ of the arm must be moved endwise in the direction of the pivot-pin (i.e. to the right, in Figure 3) sufficiently far to clear the projection PR, after which it can be drawn back again so as to be above the projection as shown in the said figure; the projection PR might alternatively be a spring detent so as to yield automatically and allow the arm A to pass up over it into the position in which the parts are shown in Figure 3, and to lock it in that position. As long as the arm remains in this relationship to the projection the blade cannot be re-closed.

In the first alternative construction illustrated in Figure 4 the arm A is of circular or other suitable cross-section and fits and slides endwise in a hole h in the outer end of the pivot-pin P. The operation of this alternative construction is substantially the same as the operation of the construction shown in Figures 1, 2 and 3.

The projection or stop PR can, if desired, be dispensed with in either case.

With reference now to the second alternative construction shown by Figures 5, 6 and 7:—The arm A is between the blade B and the knife-handle H and so is the squared portion P³ of the pivot-pin P. With the blade open, as in Figure 7, and the arm A at the extreme of its movement to the left, the arm is above the spring 3 of the knife, which would serve as a stop to intercept the arm should the blade tend to re-close accidentally.

The arm may have a part of it shaped to form a thumb-piece TP and to project outward laterally from the arm. This thumb-piece extends to the outside of the knife-handle through a notch N¹ (Figure 5) in the latter and facilitates the use of the arm for opening the blade. A notch N² in the handle can be provided into which the thumb-piece TP is received as shown in Figure 7 when the blade is open and the arm A is at the extreme of its movement to the left; this construction locks the open blade by means of the side of the notch N² acting as a stop for the contiguous face of the thumb-piece TP, and can be additional to or alternative to the construction wherein the spring 3 is used as a stop to prevent the blade from re-closing.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. The combination with the sides of a knife-handle and with a blade pivoted between them, of a pivot-pin which turns with the blade and extends from it towards or through the adjacent side of the knife, and of an arm also constructed to turn with the blade and lying across the pivot-pin and so engaged with the pivot-pin that the arm can slide in the direction of its own length

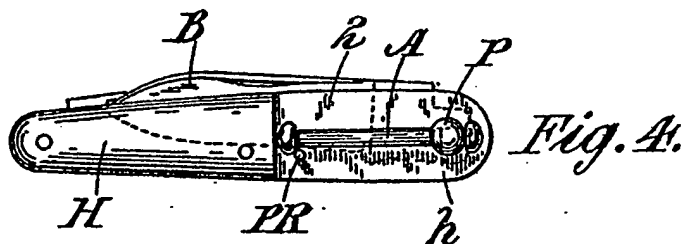
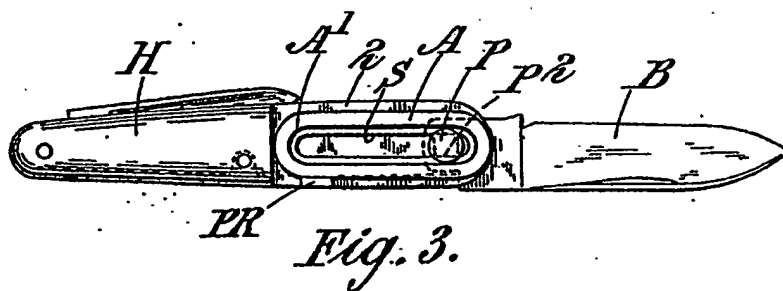
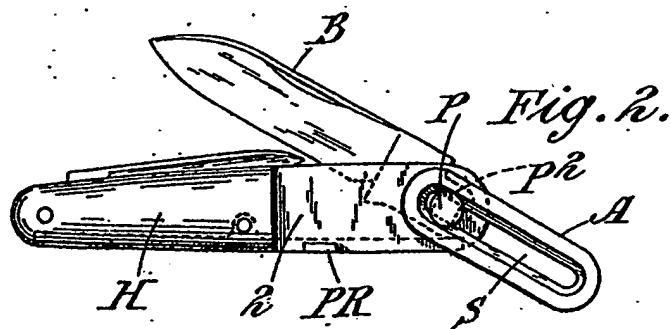
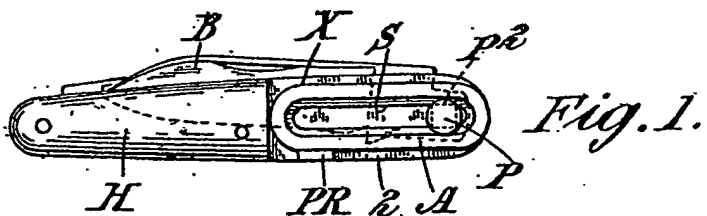
across the pin; with or without a stop (such for example as PR or 3 or the side of the notch N^a) which, for the purpose described can intercept the arm.

2. In a knife with a pivoted blade the improvement illustrated in Figures 1, 2 and 3 or in Figure 4 or in Figures 5, 6 and 7 of the accompanying drawings.

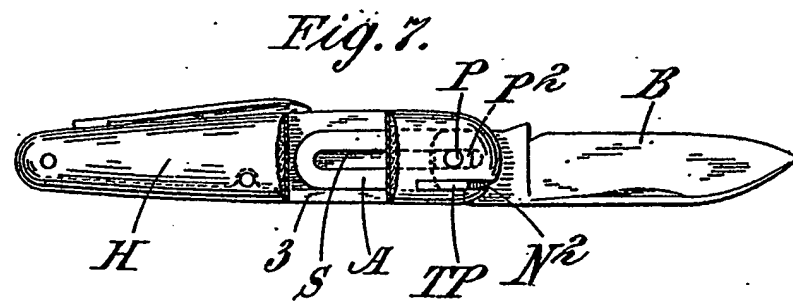
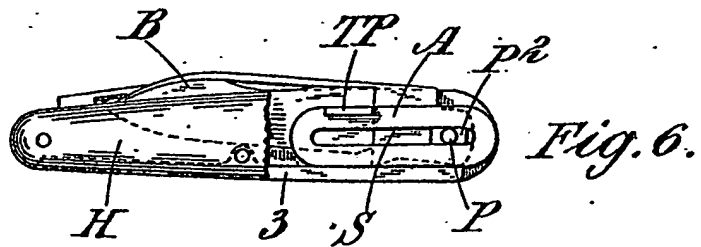
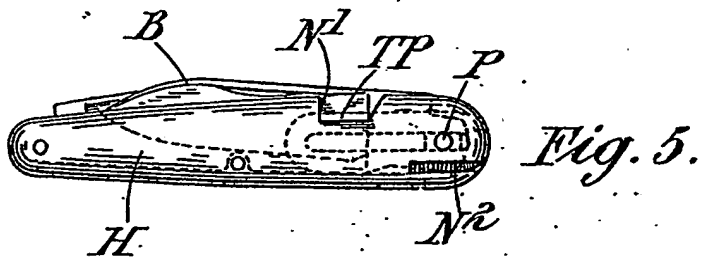
5 Dated this 23rd day of December, 1918.

BOULT, WADE & TENNANT,
111/112, Hatton Garden, London, E.C. 1,
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Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1920.



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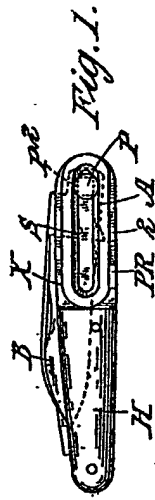


Fig. 1.

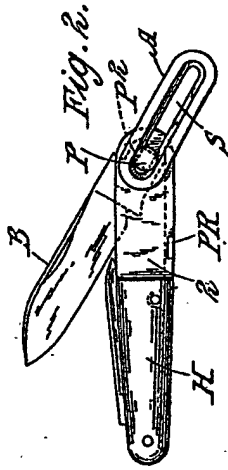


Fig. 2.

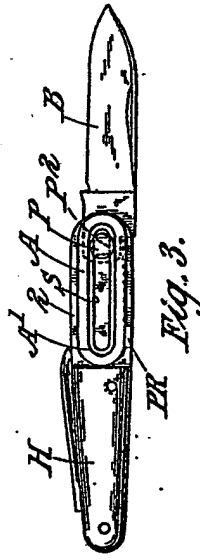


Fig. 3.

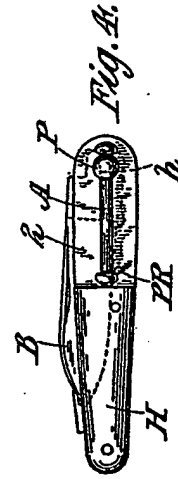


Fig. 4.

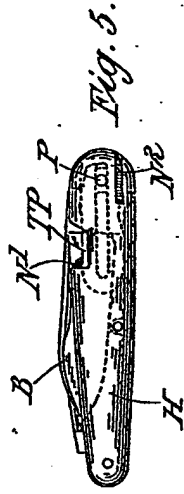


Fig. 5.

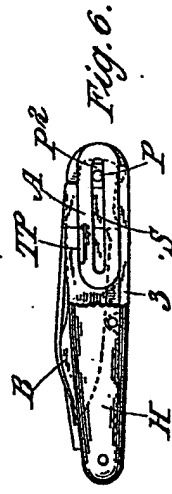


Fig. 6.

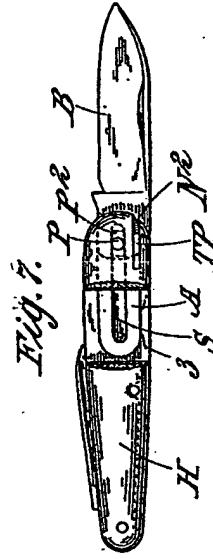


Fig. 7.

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